

Title (en)  
Cement retarders

Title (de)  
Zementverzögerer

Title (fr)  
Retardateurs pour ciment

Publication  
**EP 1886980 A1 20080213 (EN)**

Application  
**EP 06290547 A 20060331**

Priority  
EP 06290547 A 20060331

Abstract (en)  
A cement retarder system, comprises: a borate compound; an organophosphonate salt; and a copolymer of AMPS and acrylic acid and/or acrylamide; these components being present in a form that allows mixing with a cement slurry.

IPC 8 full level  
**C04B 28/02** (2006.01)

CPC (source: EP US)  
**C04B 28/02** (2013.01 - EP US); **C04B 40/0039** (2013.01 - EP US); **C09K 8/467** (2013.01 - EP US); **C09K 8/487** (2013.01 - EP US); **C04B 2103/0035** (2013.01 - EP US); **C04B 2103/22** (2013.01 - EP US); **C04B 2103/46** (2013.01 - EP US)

C-Set (source: EP US)  
1. **C04B 40/0039 + C04B 22/0013 + C04B 24/003 + C04B 24/2652**  
2. **C04B 40/0039 + C04B 22/0013 + C04B 24/003 + C04B 24/2641**  
3. **C04B 28/02 + C04B 14/06 + C04B 14/106 + C04B 22/0013 + C04B 24/003 + C04B 24/2652**

Citation (search report)  
• [A] US 7004256 B1 20060228 - CHATTERJI JITEN [US], et al  
• [A] EP 0614859 A2 19940914 - PUMPTech NV [BE]  
• [A] US 2004198873 A1 20041007 - BURY JEFFREY R [US], et al  
• [A] US 2005109507 A1 20050526 - HEATHMAN JAMES F [US], et al

Cited by  
CN102304202A; CN114890707A; US8596354B2; US9617461B2; US8550162B2; WO2011161511A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1886980 A1 20080213; EP 1886980 B1 20100210**; AT E457296 T1 20100215; DE 602006012180 D1 20100325; DK 1886980 T3 20100510; MY 142366 A 20101130; US 2010155068 A1 20100624; US 8551240 B2 20131008

DOCDB simple family (application)  
**EP 06290547 A 20060331**; AT 06290547 T 20060331; DE 602006012180 T 20060331; DK 06290547 T 20060331; MY PI20070487 A 20070328; US 71666610 A 20100303